

A New Species of *Brachystelma* (Asclepiadaceae) from Sri Lanka*

by

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(With one text figure and two plates)

***Brachystelma lankana* Dassanayake and Jayasuriya sp. nov. Fig. 1.**

Tuber usque circiter 5 cm. latum, superne et inferne depressum; caules 1- pauci, erecti, haud vel sparse ramosi, glabri, usque 14 cm. alti. Folia leviter carnosae, sessilia vel subsessilia, linearia vel angustissime elliptica, 0.7-6.2 cm. longa et 0.1-0.7 cm. lata, glabra. Inflorescentiae e nodis exortae, extra-axillares, e floribus 1-3 deinceps expansis sistentes. Pedunculus usque 1.8 cm. longus; pedicellus filiformis, usque 1 cm. longus, in statu fructifero usque 2.6 cm. elongatus. Sepala 1-2 mm. longa, anguste deltoidea, glabra. Corolla leviter coriacea, extra sordide purpurea atque glabra, intus fuscior et pilis pallide purpureis obsita; tubus campanulatus, c. 3 mm. longus et latus; lobi deltoidei, c. 2 mm. longi, in alabastro valvati, sub anthesi suberecti vel leviter patentes. Corona c. 0.5 mm., supra basin columnae staminalis exorta; corona exterior cupularis, c. 0.75 mm. alta et 2 mm. lata, crenea; lobi c. 1 mm. alti, in cornua bina purpurascens subulata divisi, cornibus columnam staminalem per 0.3 mm. superantibus; cornua loborum adjacentium recurvata et apice inter se contingentia sed facile separate; lobi coronae interioris inferne ad coronam exteriorem adnati, partibus liberi oblongis c. 8 mm. longis apice rotundatis. Pollinia c. 0.2 mm. longa, ovoidea, leviter compressa, laete flava, margine interiore per tres partes superiores pellucido, ad translationem apterum affixa. Folliculi fusiformes, usque 10.5 cm. longi, c. 3 mm. lati.

Tuber fleshy, brownish, somewhat compressed above and below, 1-5 cm broad, 1-3.5 cm tall, with no special taste or smell, rarely bearing secondary or tertiary tubers above. Stems 1-few, erect, unbranched or sparsely branched, 2-14 cm tall, glabrous, with scant watery sap; buried part of stem smooth, with pale opposite linear to deltoid scales up to 3 mm long; aerial part marked with prominent leaf-scars, minutely tubercled, green to purplish green. Leaves somewhat fleshy, sessile or subsessile, variable in size and shape, 0.7 - 6.2 cm long, 0.1 - 0.7 cm broad, linear to narrowly

* Critical Notes on Ceylon Plants. XV.

ovate or very narrowly elliptic, tapering to apex and base, narrowly channelled above and often folded upwards along mid-rib, glabrous, green to purplish green, pale and shining and with prominent mid-rib beneath, lateral veins indistinct. Inflorescence semi-erect, nodal, extra-axillary, of 1-3 flowers opening successively. Peduncle slender, purplish, puberulent, up to 1.8 cm long; pedicel filiform, purplish, puberulent, up to 1 cm long, elongating in the fruit up to 2.6 cm. Bracts about 1.5 mm long, bracteoles about 1 mm long, linear, purplish. Sepals 1-2 mm long, purple, narrowly deltoid, glabrous. Corolla somewhat leathery, dull purple externally, darker within: tube campanulate, about 3 mm long and 3 mm broad; lobes about 2 mm long, deltoid, valvate in bud, semi-erect or slightly spreading at anthesis, thickened adaxially at the base, glabrous externally, pilose with pale purple hairs within. Corona arising about 0.5 mm above the base of the staminal column; outer corona cupular, about 0.75 mm high and 2 mm broad, cream-coloured; lobes about 1 mm high, each divided into 2 purple subulate horns, flattened at base, overtopping the staminal column by about 0.3 mm, horns from adjacent lobes curving out laterally and usually meeting at their ends but easily separated; inner corona lobes adnate below to the edges of the outer corona lobes and appearing to form one series with them; free parts oblong, with rounded apices, about 0.8 mm long, abaxially flattened, incumbent over and incompletely covering the anthers. Anthers flattened, incumbent over the stigmatic head, yellow, truncate at the apex with 2 lateral thecae. Pollinia about 0.2 mm long, ovoid, slightly compressed, bright yellow, pellucid obliquely along about the upper three-fourths of the inner margin, connected to the dark reddish-brown wingless pollen-carrier by thick, short caudicles arising near the base. Stigmatic head convex above, green. Follicles up to 10.5 cm long, about 3 mm broad, terete, erect or semi-erect when single, but more usually in semi-erect pairs. Seeds about 8, brown, compressed, slightly curved, with a rounded base and truncate apex, about 6 mm long and 1.5 mm broad; coma white, about 6 mm long.

SRI LANKA (CEYLON). Matale District, Laggala, Dikpatana; c. 860 m; i. xii. 1972; *Jayasuriya and Dassanayake 988* (holotype PDA; isotypes E, K, L, US).

Notes: *Brachystelma*, a predominantly African genus occurring in Southern and tropical Africa, also has 7 species in India, according to Hooker f., *Fl. Brit India* 4:67-66 1883. No. species has, however, been previously recorded from Sri Lanka.

This species has been found to occur so far in Dikpatana, a stretch of open, gently sloping grassland with short grass and a few dicotyledonous herbs. The soil is very shallow, with underlying rock, and during the North-East Monsoon rains, when the collections were made, the soil where the plants grew, about half-way up the slope, was constantly wet and was drained by a stream.

The plant was rather frequent in this locality, and associated with it were a few unidentified species of short grass in the vegetative state, and among others the very rare lily *Dipcadi montanum* (Dalz.) Baker, *Dopatrium nudicaule* (Rottl.) Benth., *Polygala javana* DC and *Utricularia bifida* L.

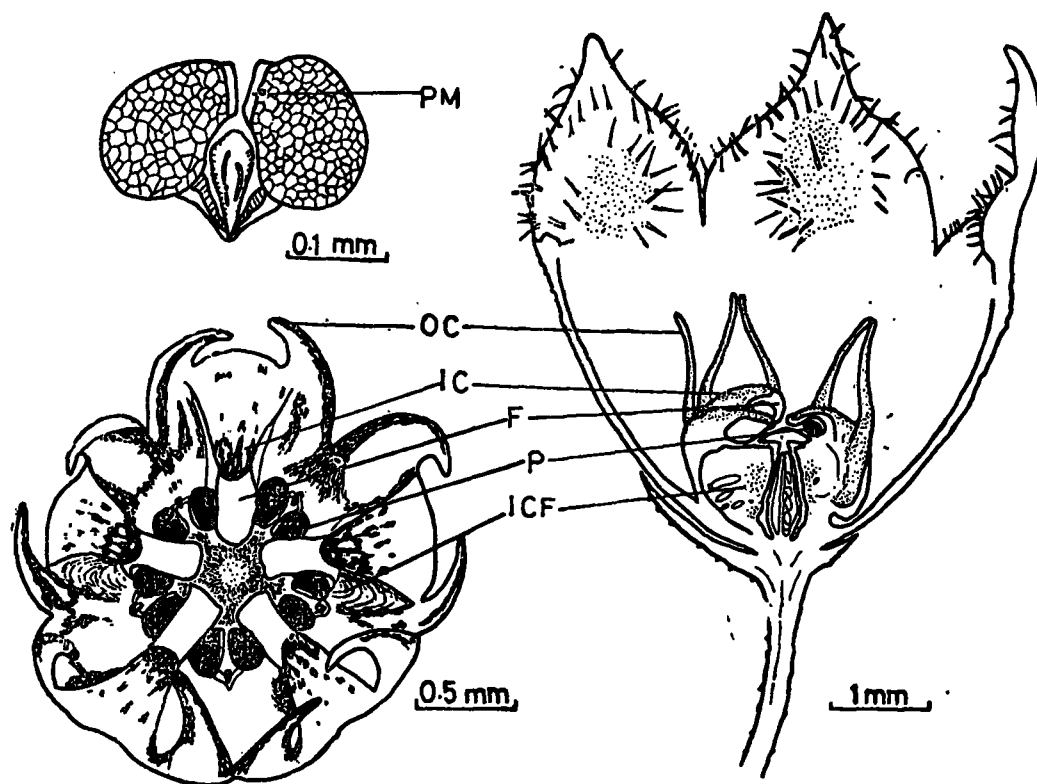


Fig 1. Left, above: pollinium; left, below: corona, stamens and stigma, face view; right: half-flower.

PM, pellucid margin; OC, outer coronal lobe; IC, inner coronal lobe; F, filament; P, pollinium; ICF, inner coronal flange

In the dry season, however, the grassland is almost completely parched and no trace of the plant could be detected above ground.

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EXPLANATION OF PLATES

PLATE 1. Habit, $\times \frac{1}{2}$

PLATE 2. a, half-flower, $\times 20$; b, outer and inner coronal lobes, $\times 30$; c, corona, stamens and stigma, face view, $\times 30$

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